THE WAR.

LICE.

DR. ALBRECHT HASE of Jena, who was deputed by the German War Office to study the plague of lice on the eastern front in the summer of 1915, has reported[1] As regards susceptibility to the bite of the body louse, inquiry among nearly a thousand individuals established the existence of the following groups: (*a*) Those whom lice do not frequent although they are in the midst of lice; (*b*) persons who are attacked by lice and continue to be susceptible to their bites over long periods; (*c*) those who are susceptible to begin with, but cease after a time to be affected by the bites although they still harbour the parasites; and (*d*) individuals who have harboured lice for long periods but have never been affected by their bites. No case in which insusceptibility had been replaced by susceptibility was met with.

Groups (*c*) and (*d*) are especially dangerous from the hygienic standpoint since they do not suffer any inconvenience, and consequently have less incentive to free themselves from the vermin. No relation between susceptibility to the bites of fleas and of lice could be made out. One hundred and eighty-one substances were tested for their capacity to protect against infection with lice; the great majority were quite useless, and Dr. Hase comments caustically on the fraud perpetrated by the vendors of these valueless preparations, sold under high-sounding names, at exorbitant prices. The conclusion arrived at is that even the most active substances known, in the largest doses, will not protect the person from lice for more than one or two days. This is confirmed by Galli-Valerio,[2] who finds that lice will even bite through skin covered with substances which cause their death. Some active compounds, such as, for instance, paradichlorbenzol, caused burns of the skin, even when the bags containing it were worn outside the shirt; others, such as clove oil, are too expensive.

There is no clear evidence that close contact with horses protects from or predisposes to lice, nor has any connexion been found to exist between perspiration, hairiness of the body, or previous infectious disease to susceptibility to lice. It is, however, asserted that underclothes heavily soiled with sweat are a protection as compared with clean garments; the explanation suggested is that the soiled garments are comparatively impervious to air and moisture, so that when the wearer works hard in warm weather the atmosphere between the clothes and the skin becomes too close and warm even for the louse. The men had rediscovered for themselves the fact that ants are antagonistic to lice, and some buried their shirts in ant-heaps in order to free them from the pest. When troops are stationary lice can be kept under only by unremitting attention to billets and clothing, and with the co-operation of every individual; where troops are continually being moved any considerable measure of success is impossible. Friedmann[3] has investigated the various procedures for killing the body louse and its nits on clothes and in rooms. Normal nits incubated at 32° C. in an atmosphere containing 40 to 60 per cent. of moisture hatched this way in eight to twelve days. Exposure to air at a temperature of 76° C. for five minutes killed both lice and nits wrapped in wool. He considered that "insect powders" were valueless, and found that lice sought out woollen materials but avoided silk, on which they would not deposit nits. He recommends the vapour of carbon disulphide for killing lice and nits in clothes and rooms. The fluid is exposed in a thin layer in flat dishes, 100 c.cm. being allowed per cubic metre of room space and allowed to act for ten to twelve hours. Clothes are well penetrated, and even furs and skins, which are soon damaged by a temperature of 80° C., are not harmed. Airing soon removes the smell, but it is to be remembered that the vapour cannot be breathed with impunity, and that there is danger from a naked flame. Although carbon disulphide is dearer than sulphurous acid it is to be preferred owing to its volatility and because it is harmless to clothes.

[1] *Centralbl. f. Bakt.*, vol. lxxvii, p. 153.
[2] Ibid., vol. lxxvii, p. 262.
[3] Ibid., vol. 77, p. 322.

DISINFECTION BY HOT AIR.

IN the earliest forms of disinfectors for clothes hot air was used. Probably the best apparatus of the kind was that devised a good many years ago by Ransome. It was a chamber lined with non-conducting material, and had an outlet at the top. The air was heated by gas jets, the temperature of the ingoing hot blast being kept constant by an automatic regulator. The best working temperature was found to be 255° F. (124° C.), which was the highest that could be used for any length of time without risk of singeing cotton goods. This, and the fact that the heat penetrated bulky articles slowly, were the chief objections to it.[1] Hot air, however, is still used for leather articles, india-rubber, furs, and books; for the disinfection of other articles of clothing it has been almost completely displaced by moist heat. Rautmann[2] now claims to have obtained highly satisfactory results by means of a current of dry hot air in an apparatus devised by Vondran. A current of air heated by passing over an electric radiator is propelled into the disinfecting chamber under pressure by an electric motor; the hot current enters at the bottom of the chamber and is drawn out from the top, returning into the blast again. This circulation of the air reduces to a minimum the amount of heat required. To test the penetrating powers of the hot air under these conditions rolls of cotton-wool weighing ½ lb. and 6 in. in diameter and 8 in. long, were exposed in the apparatus for fifty-two minutes; maximum thermometers placed in the centre of the rolls recorded temperatures of 150° C. and upward. By way of control, similar rolls of cotton-wool were exposed to the same temperature in an ordinary hot-air oven, without any special device for producing a current; no rise in the thermometers in the centre of the rolls occurred. The effect of moisture on the penetration was tested with rolls of cotton-wool which weighed 2 lb., and had a diameter of 11 in.; no difference due to the moisture was detected. Leather articles, such as boots and gloves, showed no damage after an exposure of thirty-five minutes to hot air at 178° C., which killed anthrax spores on silk threads. Boots were undamaged, even when they had been soaked in water prior to exposure in the apparatus.

Rautmann's conclusions seem to be based on laboratory experiments, for a small bundle of cotton-wool is a very different thing from a blanket or great-coat, so that although the results are promising, he does not seem to have established the practical value of the apparatus he recommends. If his statements prove even approximately correct, it might prove convenient for the destruction of lice.

[1] Notter and Firth's *Hygiene*. Third edition, 1908, p. 745.
[2] *Centralbl. f. Bakt.*, vol. lxxvii, p. 50.

CASUALTIES IN THE MEDICAL SERVICES.

ARMY.

Killed in Action.

LIEUTENANT AINSLIE BOOTH, R.A.M.C., whose death in action was noted last week, was killed on April 30th. He was the son of the Rev. Dr. Booth, of Cape Town, South Africa.

Died on Service.

Captain N. J. L. Yellowlees, of the Canadian Army Medical Corps, was reported to have died on service, in the casualty list published on May 11th.

Third-class Assistant Surgeon Joseph Valentine Fernandez, of the Indian Subordinate Medical Department, died on active service in Mesopotamia on December 1st last. He was born on January 22nd, 1885, attained warrant rank in the Bombay Army on December 31st, 1906, and was promoted to the third class on December 31st, 1911. Prior to the war he was stationed at Ahmadnagar.

Wounded.

Captain A. S. Plant, R.A.M.C., temporary.
Captain O. L. V. de Wesselow, R.A.M.C., temporary.
Captain H. F. N. Scott, R.A.M.C., temporary.
Captain F. B. Winfield, R.A.M.C., temporary.
Captain E. J. Blair, R.A.M.C.(T.F.).

Missing.

Captain W. R. O'Farrell, R.A.M.C.

DEATHS AMONG SONS OF MEDICAL MEN.

Allatt, H. T., Colonel Royal Irish Rifles, late Duke of Cornwall's Light Infantry, son of the late Dr. C. J. R. Allatt, died

suddenly on May 8th at Belfast of heart failure, following his exertions in Dublin during the rebellion. He had served in South Africa, and held the Queen's medal with four clasps. He had retired from the army for some years, but rejoined when the war broke out, and was attached to the Royal Irish Rifles. He was on duty in Dublin in charge of an armoured car.

Beatty, Eric Edge, Lieutenant Connaught Rangers, third son of Dr. Wallace Beatty, physician, Adelaide Hospital, Dublin, killed in action on April 29th, 1916, aged 22. He was educated at St. Columba's College and at Trinity College, Dublin, where he was a fourth-year medical student and half-back in the university Rugby fifteen. He got a commission in the 6th Service Battalion of the Connaught Rangers in September, 1914, and was promoted to lieutenant on February 11th, 1915.

Collins, N. H., Second Lieutenant Royal Inniskilling Fusiliers, only son of Dr. Collins of Laghey, county Donegal, killed in action. He was born in May, 1889, educated at Mountjoy school, Dublin, and got his commission on March 15th, 1915.

McConaghey, Charles Jack, Lieutenant Black Watch, son of the late Colonel John McConaghey, I.M.S., killed in action on April 21st–22nd. He was educated at Allhallows, Honiton, and at Bradfield College, Berkshire, and entered the Royal Military College, Sandhurst, in August, 1914. He got his commission on December 16th, 1914, went to Flanders in May, 1915, was wounded in the shoulder at La Bassée in September, and rejoined last February.

Wyatt, William Herbert, Second Lieutenant East Yorkshire Regiment, only son of the late Dr. W. T. Wyatt, was killed in action on May 4th. He was educated at Marlborough and at Exeter College, Oxford, where he graduated as B.A. He represented both his school and his college in the football and hockey teams. He was admitted a solicitor in July, 1913. At the beginning of the war he enlisted in the Artists Rifles, and got a commission on April 23rd, 1915.

Captain Randolph Noel Churchill Murray, Royal Inniskilling Fusiliers, reported missing, is the son of G. M. P. Murray, F.R.C.S.I., of Dublin, and a second-year medical student at Trinity College. Second Lieutenant George Malone, Royal Irish Regiment, wounded in the Dublin rebellion, is also a second-year medical student at Trinity College, Dublin.

NOTES.

MR. J. LYNN THOMAS, C.B., F.R.C.S., Surgeon to the King Edward VII Hospital, Cardiff, has been appointed Consulting Surgeon to the Western Command, with the temporary rank of honorary Lieutenant-Colonel, R.A.M.C. Mr. Lynn Thomas served with the Welsh Hospital in South Africa with the rank of Captain, and received the medal with three clasps. He retired in 1913 with the rank of Major, R.A.M.C.(T.F.).

MESOPOTAMIA.

The Joint Executive Committee of the British Red Cross and the St. John Ambulance Association has received an interim report from its commissioner, Mr. Ridsdale, who arrived in Bombay on April 4th. On his way to Bombay he stopped at Aden, and was able to supply some stores of which the medical officers were in need, and cabled to London, with the result that ice machines, disinfectors, and stores were at once dispatched to Aden. At the same time he was able to arrange with Dr. Ruffer in Alexandria and with the Red Cross commissioner in Egypt to supply additional stores and green vegetables as required. Mr. Ridsdale on his arrival in Bombay seems to have found that the Red Cross voluntary aid work was in an unsatisfactory state, and hampered by the need for constant reference to Simla. At his suggestion the Executive Committee has appointed Major Hepper, agent for the Great Indian Peninsular Railway, to be its commissioner at Bombay. Mr. Ridsdale reported that Lady Willingdon's War Supplies organization was extremely well managed by a committee of business men, and the Executive Committee has arranged to establish a branch in Bombay of an "All India" effort to help the Red Cross side of Lady Willingdon's organization. Owing, apparently, partly to Mr. Ridsdale's efforts in Bombay the audit office there is being prepared, by direction of the Government of India, as a military hospital for white troops. Mr. Ridsdale arrived at Basra on April 16th, and in response to his request a large quantity of stores have been sent out from this country to that port, consisting chiefly of water and air beds, ice machines, wheeled chairs, and medical comforts. It is reported that three motor boats sent out by the Executive Committee have reached Basra, as also two sent by the Scottish Branch of the Red Cross; five other boats are on their way out, and fifteen more will be ready by the end of May. Their arrival is anxiously awaited, as the great difficulty has been in respect of transport. The Executive Committee is also preparing a shallow draught hospital ship for use on the Tigris, very similar in construction to the three hospital ships at present under construction by the Government for river service. It will be remembered that Mr. Ridsdale is a member of the Government Committee of Inquiry into the treatment of the sick and wounded in Mesopotamia, the other members being General Bingley and Sir William Vincent.

SIR JOHN NIXON'S DISPATCH.

CTESIPHON AND KUT.

On May 10th the War Office published a dispatch from General Sir John Nixon, dated January 17th, 1916, on the operations in Mesopotamia during October, November, and December, 1915. This dispatch contains the following references to the work of the medical department:

"The medical services have had to face very trying and unusual conditions. On more than one occasion the number and severity of the casualties have thrown the greatest strain on them, but the organization and efficiency of the arrangements have ensured as speedy an evacuation of the wounded as the means placed at their disposal permitted. In this connexion I wish to bring forward the name of Surgeon-General H. G. Hathaway. . . . The British General Hospital has throughout been in charge of Lieutenant-Colonel D. J. Collins, R.A.M.C., whose zeal, energy, and organizing power have rendered it a model hospital of its kind. Credit is also due to Lieutenant-Colonel G. B. Irvine, I.M.S., for his devoted and careful supervision of the Indian General Hospital."

At the end of the dispatch the names of nineteen officers are specially mentioned; among them is Captain W. H. Hamilton, I.M.S.

HONOURS.

The names of the following officers are included in the list of officers who have been awarded the Distinguished Service Order or the Military Cross in a special supplement to the *London Gazette* of May 16th:

D.S.O.

Temporary Captain Robert McCowan Hill, R.A.M.C. (attached 2nd Battalion Argyll and Sutherland Highlanders), for conspicuous gallantry and devotion to duty. He went to an area which was under intense bombardment, amputated the leg of a wounded officer, and attended to other wounded under most difficult and dangerous circumstances. Finally, he accompanied two stretcher cases back under shell-fire.

Captain R. McCowan Hill graduated M.B., Ch.B.Glasg., and practised in Upper Tooting, S.W., before the war.

Military Cross.

Temporary Captain James Lennox Stewart, M.B., R.A.M.C. (attached 1st Battalion Gordon Highlanders). For conspicuous gallantry and devotion to duty on several occasions when tending the wounded under heavy fire. On one occasion he rallied men, and set a splendid example of coolness and bravery.

Captain J. Lennox Stewart, who received his medical education a Guy's Hospital, took the degrees of M.B., B.S.Lond. in 1912.

Serbian Orders.

The King has granted unrestricted permission for the wearing of the Order of St. Sava, of the class indicated, conferred by His Majesty the King of Serbia on the following members of the Royal Army Medical Corps Mission to Serbia, March to June, 1915:

2nd Class: Temporary Colonel William Hunter, C.B., M.D., F.R.C.P.

3rd Class: Lieutenant-Colonel George E. F. Stammers.

4th Class: Captain Sydney W. Lund, M.B., Mr. William W. C. Topley (late Captain R.A.M.C.).

5th Class: Captains: Norman Cameron, M.B., Edward S. Walls. Temporary Captains: John M. Clements, M.D., Bernard C. Ewens, Alexander K. Forbes, M.B., Charles M. Forster, J. McAdam Hill, M.B., Samuel E. McClatchey, M.B., Charles R. Nicholson, Thomas H. Ravenhill, M.B., Hugh Y. Riddell, M.B., John H. V. Scott, M.B., Philip J. A. Seccombe, M.B., Bryce McC. Smith, M.B., Charles E. H. Smith, Robert H. Spittal, M.B., Lewis A. Walker, M.D., Gerald Whittington, M.B., John S. Williamson, William M. Will, M.B., and Mr. Francis F. Brown (late Lieutenant R.A.M.C.).

Indian Army.

In the *London Gazette* of May 2nd, in a list of Indian officers on whom the Indian Order of Merit had been bestowed, with effect from January 1st, for gallantry and distinguished service in the Dardanelles, was the name of 1st Class Subassistant-Surgeon Ghaus Muhammad, I.S.M.D.

A Correction.

In the list published in our issue of May 6th, p. 670, of those upon whom the honour of C.M.G. had been conferred, the name of the undermentioned officer should have appeared as follows:

Major (temporary Lieutenant-Colonel) Creighton Hutchinson Lindsay, M.D., R.A.M.C.(T.F.).